

## SECTION 634

### CONCRETE CRIBBING

#### 634.1-DESCRIPTION:

This work shall consist of the furnishing and installing of precast concrete units to form a crib wall or similar structure, including the placing of interior and backfill material, in accordance with these Specifications and in reasonably close conformity to the lines, grades, dimensions, locations, and sections shown on the Plans.

#### 634.2-MATERIALS:

Concrete shall be Class A, meeting the requirement of 601.

Joint mortar shall conform to 708.8.

Interior filling material shall conform to the requirements of select borrow as specified in 211. Shale or cinders shall not be used.

Reinforcing steel shall conform to 709.1 or 709.3.

The details of the crib members and their arrangements shall be as shown on the Plans. If manufactured on the Project, crib members shall be cured in accordance with 601. All members shall be free from depressions and spalled, patched, or plastered surfaces or edges, or any other defects which may impair their strength or durability. Cracked, untrue, or otherwise defective members will be rejected.

### CONSTRUCTION METHODS

#### 634.3-PLACING CRIB MEMBERS:

The prepared foundation bed for the cribbing shall be firm and normal to the face of the cribbing and will be approved by the Engineer before any of the crib work is placed. The crib members shall be erected as shown on the Plans. Care shall be taken to insure the correct alignment and batter on the crib wall. If a slight adjustment is needed, a shim made of shingles may be used.

Asphalt bearing pads having a thickness of ¼ in. (6 mm), and having a dimension of ½ in. (12 mm) greater than the bearing width in any direction, shall be placed between all bearing surfaces. When concrete cribbing is placed without batter, the asphalt bearing pads shall be eliminated and the cribbing members laid with a 1 to 2 cement mortar joint. The crib members shall be handled carefully, and members that become cracked or otherwise damaged shall be removed and new members substituted without extra compensation.

#### 634.4-FILLING CRIB:

The filling of the interior and backfilling behind the crib shall progress simultaneously with the erection of the cribbing. The interior shall be filled with approved granular material. The space back of the cribbing shall be filled with suitable random material. All material shall be free of particles larger than 3 inches (75 mm), frozen lumps, wood or other extraneous material. All

material shall be placed in layers not exceeding 4 inches (100 mm) after compaction. This method of filling and compacting the interior and backfilling shall be continued until the embankment is level with the top of the structure, except, where the backfill is accessible to a roller, the backfill shall be compacted in accordance with 212.10. In any event, the greatest care shall be exercised in the placing and compacting of material between and back of the crib cells so that damage will not occur to the crib members.

The quality control testing and acceptance of the interior and backfill material will be according to the applicable sections of 207 and 716 or 717 with the following exceptions:

A lot will normally consist of the quantity of material required to fill the interior of the cribbing and backfill, except where the filling material and backfill material are different and in this case, each type of material would constitute a lot. For large installations, a lot should not exceed the quantity of material to fill or backfill 100 linear ft. horizontal and 20 ft. vertical. If either of these dimensions is exceeded, a new lot should be established.

The target percentage of density will be 95 percent, and each lot will have 5 density tests performed for quality control.

#### **634.5-METHOD OF MEASUREMENT:**

The quality of work done will be measured in cubic feet (meters) of "Concrete Cribbing", complete in place and accepted, determined by a tabulation of the number of pieces of each size and variety of separate members used, times the volume of the respective members calculated from their dimensions.

"Structure Excavation" will be limited to a plane 18 in.(450 mm) from and parallel to the faces of the cribbing.

#### **634.6-BASIS OF PAYMENT:**

The quantity, determined as provided above, will be paid for at the contract unit price bid for the item below, which price and payment shall be full compensation for furnishing all the material and doing all the work prescribed in a workmanlike and acceptable manner, including all labor, tools, equipment, supplies, and incidentals necessary to complete the work, except that the necessary structure excavation with limitations as specified above, will be paid for as Item 212001-\*, "STRUCTURE EXCAVATION". The cost of asphalt bearing pads or joint mortar, granular filling of the interior, and backfilling behind the crib shall be included in the bid price for "Concrete Cribbing".

#### **634.7-PAY ITEMS:**

ITEM	DESCRIPTION	UNIT
634001-*	CONCRETE CRIBBING	CUBIC FOOT (METER)

\* Sequence number